Amendments to the Claims

The listing of claims below replaces prior versions of claims in the application:

Claims pending

- At time of the Action: Claims 1-10,13-39 and 42-44
- After this Response: Claims 1-10, 13-16, 18-24, 26-30, 32, 34, 36-38 and 42-44

Canceled or Withdrawn claims: 31, 39

Amended claims: 26, 27 and 32.

New claims: None

1.   (previously presented)   A television tuner comprising:

a tuner software module to expose functionality of the tuner software module to an application program via an application programming interface and to find a particular frequency using:

a country table listing a plurality of countries; and

multiple channel-to-frequency mapping tables correlating channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country; and

· 2

1   a tuning device to tune to the found particular frequency within the

2   channel-to-frequency mapping table associated with the selected country upon

3   selection of a corresponding channel.

4

5   2.   (Original)   A television tuner as recited in claim 1, wherein the

6   country table lists the countries according to a uniquely assigned country code.

7

8   3.   (Original)   A television tuner as recited in claim 1, wherein the

9   country table lists the countries according to an International Telecommunications

10   Union (ITU) code.

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12   4.   (Original)   A television tuner as recited in claim 1, wherein the

13   channel-to-frequency mapping tables also contain a television standard for the

14   associated countries.

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16   5.   (previously presented)   A television tuning component for a

17   television tuning system, comprising a tuner software module to expose

18   functionality of the tuner software module to an application program via an

19   application programming interface and to adjust the television tuning system

20   using:

21   a country table listing a plurality of countries; and

22   multiple channel-to-frequency mapping tables correlating channel

23   numbers to corresponding frequencies for associated countries in the

24   country table, the channel-to-frequency mapping tables being indexed by

25   the country table so that selection of a country in the country table

3

references an associated channel-to-frequency mapping table for the selected country and selection of a channel in the channel-to-frequency mapping table maps to a corresponding frequency.

6. (Original) A television tuning component as recited in claim 5, wherein the country table lists the countries according to a uniquely assigned country code.

7. (Original) A television tuning component as recited in claim 5, wherein the country table lists the countries according to an International Telecommunications Union (ITU) code.

8. (Original) A television tuning component as recited in claim 5, wherein the channel-to-frequency mapping tables also contain a television standard for the associated countries.

9. (Original) A television tuning component as recited in claim 5, embodied in software as a dynamic linked library stored on a computer-readable storage medium.

10. (Original) A television tuner incorporating the television tuning component as recited in claim 5.

11-12. (cancelled).

4

13.   (previously presented)   A television tuning system comprising:

tuner circuitry to tune to various television frequencies carrying television video signals;

video decoder circuitry coupled to receive a television video signal from the tuner circuitry and to convert the television video signal to digital video data;

a tuner module coupled to adjust the tuner circuitry to a particular television frequency, wherein the tuner module supports an application programming interface to expose functionality of the tuner module to an application program;

a video decoder module to decode the digital video data according to a particular video standard;

wherein the tuner module has a country table listing a plurality of countries and multiple channel-to-frequency mapping tables that provide video standards and correlate channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency mapping tables being indexed by the country table so that selection of a country in the country table references an associated channel-to-frequency mapping table for the selected country; and

wherein the tuner module selects a channel-to-frequency mapping table based upon input of a particular country and outputs a video standard to the video decoder for use in decoding the digital video data, the tuner module further selecting a television frequency from the selected channel-to-frequency mapping table based upon input of a corresponding channel and outputting the selected television frequency to the tuner circuitry to cause the tuner circuitry to tune to the selected television frequency.

5

14.   (Original)   A television tuning system as recited in claim 13, wherein the country table lists the countries according to an International Telecommunications Union (ITU) code.

15.   (Original)   A television tuning system as recited in claim 13, wherein the tuner module is embodied as a dynamic linked library.

16.   (Original)   A television tuning system as recited in claim 13, further comprising a second tuner module different from the tuner module, the second tuner module being used to replace the tuner module during upgrade without replacing the tuning circuitry and the decoding circuitry.

17.   (cancelled).

18.   (Original)   A television tuning system as recited in claim 13, wherein the tuner module stores a set of television frequencies that map to corresponding channels within the particular country for subsequent retrieval.

19.   (previously presented) A television tuning manager for a television tuner, the television tuning manager being implemented in software stored on a computer-readable storage medium, the television tuning device comprising:

    a country table listing a plurality of countries;

    multiple channel-to-frequency mapping tables correlating channel numbers to corresponding frequencies for associated countries in the country table, the channel-to-frequency mapping tables being indexed by the country table so that

6

selection of a country in the country table references an associated channel-to-

frequency mapping table for the selected country;

        a code segment to select a channel-to-frequency mapping table based upon

input of a particular country; and

        a code segment to output a broadcast frequency from the selected channel-

to-frequency mapping table based upon input of a corresponding channel; and

        an application programming interface configured to expose functionality of

the television tuning manager to an application.

        20.   (Original)   A television tuning manager as recited in claim 19,

wherein the country table lists the countries according to a uniquely assigned

country code.

        21.   (Original)   A television tuning manager as recited in claim 19,

wherein the country table lists the countries according to an International

Telecommunications Union (ITU) code.

        22.   (Original)   A television tuning manager as recited in claim 19,

wherein the channel-to-frequency mapping tables also contain a television

standard for the associated countries.

        23.   (Original)   A television tuning manager as recited in claim 19,

further comprising a code segment to store a set of broadcast frequencies that map

to corresponding channels within the particular country for subsequent retrieval.

7

24.   (Original)   A television tuning manager as recited in claim 19,
embodied as a software dynamic linked library stored on a computer-readable
storage medium.

25.   (cancelled).

26.   (Currently amended)   One or more computer-readable media
comprising computer executable instructions that, when executed, direct a
computer to expose an An-application program interface for a television tuning
system to an application program, the application program interface being
embodied on a the computer-readable medium and having methods for performing
the following functions:
    setting a current TV channel;
    retrieving the current TV channel;
    setting a country code;
    retrieving the country code;
    setting a storage index for regional channel to frequency mappings; and
    retrieving the storage index.

27.   (currently amended) One or more computer-readable media
comprising computer executable instructions that, when executed, direct a
computer to expose an An-application program interface for a television tuning
system to an application program, the application program interface being
embodied on a the computer-readable medium and having methods for performing
the following functions:

8

retrieving all analog video TV standards supported by the tuning system;

retrieving a current analog video TV standard in use;

setting a current TV channel;

retrieving the current TV channel;

retrieving highest and lowest channels available;

scanning for a precise signal on the current TV channel's frequency;

setting a country code;

retrieving the country code;

setting a storage index for regional channel to frequency mappings;

retrieving the storage index;

retrieving a number of TV sources plugged into the tuning system;

setting a type of tuning system;

retrieving the type of tuning system;

retrieving a current video frequency; and

retrieving a current audio frequency.

28.   (previously presented)   A method comprising executing a
software module configured to:

expose functionality of the software module to an application via an
application programming interface;

receive an ITU (International Telecommunications Union) code for a
particular country; and

select, based on the ITU code, a set of TV channel-to-TV frequency
mappings for use in the particular country.

9

29.   (Original)   A method as recited in claim 28, further comprising the step of selecting, based on the ITU code, a TV standard for use in the particular country.

30.   (Original)   A method as recited in claim 28, further comprising the step of storing the selected set of TV channel-to-TV frequency mappings.

31.   (cancelled).

32.   (Currently amended) A method comprising <u>exposing functionality of a tuner software module to an application program via an application programming interface for</u>:

   receiving a reference to a country;

   selecting, based on the country reference, a set of channel-to-frequency mappings correlating channels to corresponding TV frequencies in the country and a television standard;

   receiving a channel;

   selecting, based on the channel, a TV frequency that maps to the channel

   sending the frequency to the tuner circuitry;

   tuning to the frequency to receive a television signal carried by the channel;

   converting the television signal to digital video data; and

   decoding the digital video data at the video decoder software module using the television standard received in the tuning packet.

33.   (cancelled).

10

34.   (Original)   A method as recited in claim 32, wherein the country reference is an ITU (International Telecommunications Union) code.

35.   (cancelled).

36.   (Original)   A method as recited in claim 32, further comprising the step of scanning for a better quality frequency within the channel.

37.   (Original)   A method as recited in claim 32, wherein the step of selecting a set of channel-to-frequency mappings comprises the following steps:

looking up the country in a country table that lists multiple countries; and

indexing from an entry for the country in the country table to a particular channel-to-frequency table, the particular channel-to-frequency table containing mappings of channel numbers to TV frequencies for the country.

38.   (Original)   A method as recited in claim 37, wherein the step of selecting a TV frequency comprises the step of looking up in the particular channel-to-frequency table a TV frequency that corresponds to the channel.

39-42. (cancelled).

43.   (Previously Presented)   A tuning system comprising:

11

a tuner software module configured to expose functionality of the tuner

software module to an application program via an application programming

interface and to find a particular frequency using:

a country table listing a plurality of countries; and,

multiple channel-to-frequency mapping tables correlating channel

numbers to corresponding frequencies for associated countries in the

country table, the channel-to-frequency mapping tables being indexed by

the country table so that selection of a country in the country table

references an associated channel-to-frequency mapping table for the

selected country, and wherein said tuner software module adjusts to a

particular video standard based on a selected channel from one of the

multiple channel-to-frequency mapping tables.

44.   (previously presented)   One or more computer-readable media

having computer readable instructions thereon which, when executed by a

computer, cause the computer to:

expose functionality of the computer readable instructions to an application

program via an application programming interface;

receive data regarding a selected country;

map to channels available for the selected country;

receive data regarding a selected channel;

map to an appropriate video standard based on at least one of the selected

country and selected channel; and,

format a tuning component to the appropriate video standard.

12